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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,144	09/20/2000	Vaijayanti A. Kumar	273944	5793
26694	7590	06/29/2005	EXAMINER	
VENABLE LLP			ANGELL, JON E	
P.O. BOX 34385			ART UNIT	
WASHINGTON, DC 20045-9998			PAPER NUMBER	

1635

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/666,144

Applicant(s)

KUMAR ET AL.

Examiner

Jon Eric Angell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-12 and 14-25 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16, 19, 20, 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 17 18 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Action is in response to the communication filed on 4/11/05. The amendment filed 4/11/05 is acknowledged. The amendment has been entered. Claims 1-9 and 13 have been cancelled. New claims 14-25 have been added. Claims 10-12 and 14-25 are currently pending in the application and are addressed herein.

Applicant's arguments are addressed on a per section basis. The text of those sections of Title 35, U.S. Code not included in this Action can be found in a prior Office Action. Any rejections not reiterated in this action have been withdrawn as being obviated by the amendment of the claims and/or applicant's arguments.

Election/Restrictions

This application contains claims 10-12 drawn to an invention nonelected with traverse in the communication filed 6/6/02. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

Claim 21 is objected to because of the following informalities: it is required that all claims be a single sentence that end with a period. Claim 21 is objected to because it does not have a period.

Appropriate correction is required.

Claim Rejections - 35 USC § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17, 18, 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17 and 18 are drawn to “the compound as claimed in claim 15, wherein oligomers are synthesized...” and “the compound as claimed in claim 16, wherein oligomers are synthesized...” respectively. It is noted that claims 15 and 16 are drawn to a genus of compounds. Claims 17 and 18 are indefinite because it is not clear if the claims are drawn to compounds or to synthesizing oligomers.

Furthermore, there is insufficient antecedent basis for the limitation “oligomers” in the claim. It is acknowledged that claims 15 and 16 encompass a genus of compounds. However, it is not clear if the term “oligomers” encompasses all of the compounds of claims 15 and 16 or only some of the compounds. If only some of the compounds are encompassed, then it is unclear which compounds are encompassed by the term “oligomers” and which ones are not.

Claims 22 and 23 depend on claim 7 (See the last line of claims 22 and 23 which states “according to claim 7”). However claim 7 has been cancelled. Therefore, the instant claims are indefinite because they depend on a cancelled claim.

Claims 22 and 23 are also indefinite because the claims encompass “a process for sequence specific recognition of a single or double stranded DNA or RNA by oligomers as in

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claim 14” and “a process for sequence specific recognition of a single or double stranded DNA or RNA by oligomers as in claim 15”, respectively. It is not clear if the instant claims are intended to be drawn to “a process” as in claims 14 and 15 or “oligomers” as in claims 14 and 15. Furthermore, there is insufficient antecedent basis for both of the terms because claims 14 and 15 are drawn to a genus of compounds. With respect to the limitation “oligomers” is not clear if the term “oligomers” encompasses all of the compounds of claims 14 and 15 or only some of the compounds. If only some of the compounds are encompassed, then it is unclear which compounds are encompassed by the term “oligomers” and which ones are not.

Claim Rejections - 35 USC § 112, 1st paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 21 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method for preparing the monomer synthons of formulae 4a and 6a, does not reasonably provide enablement for the full scope encompassed by the claims. Specifically, the method is not enabled for producing any compound of claim 19 other than the compounds of formula 4a and 6a. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

Factors to be considered in determining whether a disclosure meets the enablement requirement of 35 USC 112, first paragraph, have been described by the court in *In re Wands*, 8 USPQ2d 1400 (CA FC 1988).

Wands states on page 1404,

“Factors to be considered in determining whether a disclosure would require undue experimentation have been summarized by the board in *Ex parte Forman*. They include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.”

Claim 21 is drawn to a process for preparing a monomer precursor-synthon of formula IV (see claim 19) comprising the steps set forth in A (a-b), B (i-iv) and C. It is noted that formula IV encompasses a genus of molecules that meet the limitations set forth in claim 19. Therefore, the instant claim is very broad and encompasses making any of the molecules encompassed by formula IV. However, step C of the instant claim explicitly indicates,

“Mitsunobu reaction of compounds 1-(N-Boc-aminoethyl)-4R-hydroxy-2S-prolinemethyl ester and (N-Boc)-2-aminoethanol prepared according to steps B(i) and B(ii) with N3-benzoylthymine, to produce monomer synthons of formulae 4a and 6a, respectively.”

Therefore, it is clear that the instant method would result only in the production of either the monomer synthon of formulae 4a or the monomer synthon of formulae 6a depending on whether Mitsunobu reaction of compound 1-(N-Boc-aminoethyl)-4R-hydroxy-2S-prolinemethyl ester or compound (N-Boc)-2-aminoethanol was performed. It is noted that the specification does not appear to indicate that any other molecules could be made using the specifically claimed method steps.

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Since the instant claimed method can only result in the production of the monomer precursor-synthon of formulae 4a or 6a, the claim is clearly not enabled for any molecule encompassed by claim 19 other than the monomer precursor-synthon of formulae 4a or 6a.

Allowable Subject Matter

Claims 14-16, 19, 20 24 and 25 are allowed.

Response to Arguments

It is noted that all claims examined in the previous Office Action have been cancelled. With respect to the rejections as they pertain to the new claims, it is noted that the amendment and/or applicants arguments are persuasive with respect to the rejections of record. However, new grounds of rejection for claims 17, 18 and 21-23 are appropriate for the reason set forth herein. The rejections are necessitated by the amendment to the claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Eric Angell whose telephone number is 571-272-0756. The examiner can normally be reached on Mon-Fri, with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader can be reached on 571-272-0760. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jon Eric Angell, Ph.D.
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Anne-Marie Falk
ANNE-MARIE FALK, PH.D
PRIMARY EXAMINER